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MENTAL ARITHMETIC.

I think I may say, in the outset, that no study of such vital importance has ever been neglected so universally in our common schools as this. All of us remember where we first began to study "the science of computation by numbers," in that little book whose first lesson was to learn to count the stars in a certain triangular arrangement, where every side of the triangle counted ten, and how we studied, and counted our fingers to make correct answers to those progressive questions which came afterwards.

Well, so far, all right. But what followed? As soon as we were capable of telling how many times eight make forty-eight, we must have a slate and pencil, and another book, whose rules and principles were Greek and Latin to us, out of which to "cipher" like our large brothers. Here is the fatal step!

The idea of a scholar beginning to "cipher" when he is so young that he must have his pencil tied to his slate for fear he will lose it, in my humble opinion, is the height of folly, and should be tolerated by no teacher, under any circumstances. If scholars could never see a practical arithmetic until they were adepts in mentalizing, we should not see our seminaries and academies choked with stumbling, blundering mathematicians.

The greatest obstacle to be overcome in teaching any advanced branch of mathematics, is the almost universal dullness of scholars upon this particular point. In Algebra we find a wide field for mental operations, but so much neglected have been their mentalizing powers, that unless every part of an example is put in "black and white," even to its most minute

multiplication or division, they are left in a hazy mist of doubt and conjecture as to the right or wrong of the teacher's work. Now, I charge no blame upon the scholars, but upon their parents and teachers. Our common schools are the architects of the foundations upon which our academies and colleges are to raise superstructures, and if they are not upon the rock of correct fundamental beginnings, how can it be expected that the building will be easily reared, or finally established? Parents often dictate the position or study which they wish their children to take, where the teacher is the only proper one to dictate, for parents are always ambitious, and in their inordinate desire to see Johnny and Jimmy ciphering, or Sophia and Maria conjugating the verb "to love," they overlook the true attainments of their unintentionally abused children, while the teacher could look at the matter rationally, and without prejudices. Scholars have the idea that the sooner they are initiated into the mysteries of the slate and pencil the better, and their parents are ever ready to foster the propensity whenever they see it germinate.

Now, this is all wrong, for it is an incontrovertible fact that a thorough course in mental arithmetic is the best preparation a scholar can have for beginning any other branch of mathematical knowledge. By a thorough course of mental arithmetic, I do not mean the mechanical, hum-drum operations usually gone through in our common schools, but something more varied and extensive; something in which not only the tyros could be interested and instructed, but also the most advanced in school.

In our common schools it has become a mark of inferiority to be studying mental arithmetic; and how often do we see a fortunate—or rather, unfortunate—little fellow just graduated from the mental arithmetic class, exulting over and taunting a knight of the homespun coat and jacket, who is a whole head taller than himself, just because he cannot cipher and domineer over a slate and pencil? There is no common school in this State in which a mental arithmetic class, embracing the whole school, would not be of immense benefit, and, saving the feelings of those who are dabbling in the higher mathematics and learned languages, it seems to me that not a little good might be done by a similar class, even in our academies. Some might be indignant, and feel imposed upon, inasmuch as they did not "go away to school" to study mental arithmetic; but I will venture to say that after a week's trial they could be easily persuaded that the study, proper, was not any more for little boys and girls than for grown up ones. However much they may affect to despise the idea, facts warrant the assertion, that nine out of every ten need mental more than practical arithmetic.

S. S. R.

MILTON, Nov. 5, 1859.

THE TRUE ORDER OF STUDIES.

BY PRES. HILL, ANTIOCH, OHIO.

(*Continued from the November Number.*)

To the second great division in the hierarchy of science we have given the name of Natural History. The word Physics might also have been used, but, in either case, the meaning of the term is to be so far extended as to include all the studies of the material world in its natural state. Inasmuch as matter is formed and governed in subjection to the laws of space and time, this study of the material world logically demands a previous knowledge of mathematics; and no natural phenomenon is understood until the geometrical or algebraical law, suggested and exemplified by it, has been, at least partially, comprehended. In proportion as the scholar's knowledge of mathematics is enlarged, his power of comprehending the physical universe is increased. And, inasmuch as a knowledge of geometry is the earliest mathematical acquirement, those parts of natural history which depend upon the perception of forms may be earlier acquired than those which depend on mechanical, chemical, or physiological considerations.

Thus, although the fundamental principle of our classification places mechanics before chemistry, and chemistry before biology, our fundamental principles of education allow, and require, some instruction in botany and zoology before any is given in chemistry or mechanics.

A perfect knowledge of animals requires a knowledge of the vegetable world, which is their food; a perfect knowledge of plants requires a knowledge of their chemical constituents, and of their chemical relation to the soil and to the air; a perfect knowledge of chemistry requires a knowledge of mechanical forces. Thus, in the hierarchy, mechanics is the first department of Natural History. But we must, of course, be understood as now giving to the word mechanics a much wider signification than usual. We are including the consideration of all those phenomena of nature that arise from mechanical laws, that is, from forces whose prime effects have been shown to depend on motion. A discussion of the boundary between mechanics and chemistry, showing, for example, why we place color under mechanics, and taste under chemistry, although interesting in a metaphysical view, and necessary for a clear understanding of the philosophy of our subject, will not be required in a purely practical consideration of the course of studies, such as we are now engaged upon.

There have lately been published several treatises on the philosophy of common things, some of which, although crowded with errors and puer-

ilities, have a very extensive circulation. Others, free from these faults, are defective from their not containing the most fruitful facts and principles of mechanics. It is not surprising that text-books on these subjects should be grossly deficient, when we recollect that in geometry and arithmetic, the oldest and simplest sciences, it has been very difficult to find perfectly unexceptionable treatises, and still more difficult to find teachers who will use the best books in the best manner. We trust that, through the increasing attention now given to education, and especially through the influence of normal schools, recognizing teaching as a distinct and high profession, we may hereafter have better text-books upon all subjects and also teachers capable of teaching in the best way, even if the manuals for instruction should be imperfect. In all departments of Natural History the best text-books are the objects themselves, of which you would teach.

The earliest instruction of a child in the direct principles of mechanics should begin, we think, at the age of seven or eight years, and at first be incidental, that is, founded on the occurrences of the moment. In his use of little bricks for building, for example, he will have practical lessons, from which the teacher may deduce and render clear to the pupil some of the principal properties of the center of gravity, and of the state of stable and unstable equilibrium. In playing with marbles and balls, opportunities occur for showing distinctly to a child the law of the composition of forces, the accelerating effect of a constantly acting force, the increase of momentum by the increase of velocity, and the like. The laws of elasticity, also, and of the reflection of motion, may be exemplified in the rebounding of balls, the return of echoes, and the use of mirrors. Of course, it will be worse than useless to give to the child simply stereotyped phrases, or vague and indistinct ideas, such as are too often found in popular text-books; but, if the teacher has himself clear ideas on these subjects, he will find the child eight or ten years old ready to receive them. Even the principal laws of optics, of acoustics and thermotics, may be incidentally taught. The optical toys, which are in almost every household, musical instruments, burning-glasses, and the phenomena of dew, rain, frost, and snow, will give the needed opportunities. Only let the caution be continually borne in mind, that it is much better to confess to a child your ignorance of a subject, than to attempt to give an answer to his question while your own views are ill-defined and unsatisfactory.

One of the earliest studies, commencing, perhaps, at the age of seven years, should be geography. Let it be taught, at first, by the aid of a globe, without reference to maps. The immense magnitude of the earth will be apprehended by the child only when, in later years, he has traveled distances that have an appreciable ratio to the earth's circumference. At first he must be content with understanding accurately its form and motions. In describing these, the teacher should be careful to use the globe

only as an illustration, not as though it were the thing of which he is speaking, else the child will never transfer his conceptions from the globe to the earth. In the course of thirteen years' service upon a school committee we have never found a teacher who gave to the scholars a clear conception of the physical boundaries between the five zones, and but few who even attempted it. The differences of climate and the number of degrees of extent are taught, but the child does not know what appearances of the heavenly bodies decide the position of the tropics and polar circles. Nor do we find that scholars in general gain any clear conception of the actual direction of places. Their views, being derived from maps, are necessarily errroneous. From one of the Holbrook Co.'s globes a child can readily be made to see that a straight line from one point on the globe to another, would always go through a portion of the earth, so that to point directly towards any distant place he must always point more or less downward.

The following extract from the instructions of the school committe in Waltham to the teachers of the sub-primary schools will serve as an example of the mode of teaching geography: "Begin with the globe; set it where the sun may shine upon it; bring Waltham to the top, and make the north pole point to the north. Lay a marble on the top of the globe, and show them that the light and shadow on the marble and on the globe are similarly situated. Explain the roundness of the earth; that it is only a bigger globe, under the little globe, as that is under the marble; and that the light and shade fall on it as they do on the globe and marble, making night in the shadow, day in the sunshine. Give them vivid conceptions of the size of the earth, by showing them how small upon the globe would be the landscape visible from Prospect Hill; how near to the point which represents Waltham would be the point representing the distant Monadnoc. Show them in what countries the sun is then rising, and in what setting, and where it is vertical, by simple reference to the light and shadow on the globe; and, after an hour's attention to other studies or amusements, return to the globe, and show them how the light has traveled round. Show them, according to the season of the year, whether the north or south pole remains in light or shadow all the day. Repeat this lesson at all seasons of the year, but especially do not forget it at the equinoxes and solstices. Explain how reflection from the globe diminishes the intensity of the shadow on the marble, and the reflection from the window-seat partially enlightens the under side of the globe, while there is no window seat under the earth to reflect light upon China and New Holland. Make the amount of reflection from the window-seat more apparent to them by covering it alternately with a black veil and a white handkerchief. In like manner, although the globe will, after sunset, be in the shadow of the earth, there is no larger body below the earth to cast a shadow on our antipodes.

"Take your children occasionally to walk; go on the hills; show them

how the presence of a brook or river can be foretold from the extent of the valley, the nature of the soil, and the kind of vegetations, whether forests or grass ; show them the roundness of the earth from the increasing dip of the horizon, as you ascend; make them perceive how beautiful the illusion by which we always exaggerate vertical heights, and under-estimate horizontal distances; call their attention to the differences in soils, and in the rocks, and point out the effects of soil and of location upon vegetation."

The earliest lessons in astronomy may be given at a very tender age. As by the globe in the sunshine the best illustration of day and night can be given, so the idea of the moon and her motions is best communicated by procuring a ball a little over one quarter the diameter of the globe, and holding it about one hundred and ten times its own diameter from the globe. If now the moon is visible when the sun is shining, let the pupil lay the side of his head upon the globe, while the teacher holds the ball at the proper distance, in such a position that, to the child, it shall appear to be just over the moon. The sunshine upon the ball will appear to him to be of the same size and shape as the visible part of the moon. The endeavor in astronomy, as in geography, should be to lead the child's mind away from the illustration to the thing illustrated. for this reason it will be with difficulty that the school-teacher can go in astronomy to any advantage beyond the relations of the sun, earth, and moon. In order to give clear conceptions concerning the planets, stars, and nebulæ, the teacher must meet the pupils in the evening, when those bodies are visible. But it is of so much importance that the child should have early a distinct conception of the relations of the solar systems that few teachers would be unwilling to perform this extra labor. Astronomy and geography are to be used as the most powerful of all studies to develop the imagination; that is, the ability to conceive clearly and distinctly unseen phenomena.

Chemical relations are more abstruse than mechanical. It requires some maturity of mind in order to distinguish chemical compounds from mechanical mixtures; and yet, at the age of nine or ten years, the simplest phenomena of chemical change begin to excite the child's curiosity; and it will be greatly to his advantage if that curiosity is gratified with correct explanations and sound principles, instead of being lulled by a plausible pretence of explanation. Oxidation, especially in the forms of combustion and rust, is the most prominent instance of chemical metamorphosis, and will afford to the skillful teacher the opportunity of giving, in what we have called an incidental way, many of the fundamental principles of chemical affinity, atomic proportion, atomic combinations, the stability or instability of chemical equilibrium, and so on. We acknowledge that this implies a large amount of intellectual life in the teacher; but one who is intrusted with the direction of these earliest movements of the expanding mind should be a person not only of some acquirements,

but of some intellectual vivacity. Nothing more surely characterises a skillful teacher than the ability to seize upon the right moment and the right occasion for illustrating the principles which he wishes to impart. One perpetual danger, it must not be forgotten, attends these essays to give the first instruction to a child—the danger of extinguishing its natural thirst for knowledge. This may be done by diverting the attention to other themes, by discouraging or disgusting the mind with difficulties, or by communicating knowledge in such a way as to puff the child with the conceit that he now understands the whole science of which you have given him some of the simplest rudiments. The art of giving instruction may be compared to that of letter-writing, of which it is humorously said that the great secret is to make the recipient "wish there was more of it."

Inasmuch as botany, while it depends in its physiology upon chemistry, classifies plants solely by texture and form, a knowledge of the common weeds and flowers, trees, mosses and lichens, of the neighborhood, may be given to a child as soon as it is old enough to distinguish them. In the tabular view there is an accidental error, making the incidental instruction in biology commence at a later period than we should advise. From the day that the child enters the sub-primary school we should have it receive oral instruction, illustrated by living plants, if possible, or by dried specimens, or even by drawings, in systematic botany. At first the child may simply be taught to recognize the plants as individuals; so that he may be able to say, "This is a twig of sugar-maple, and this a sprig of white-birch; here is a bird-foot violet, and there a dandelion." But the plants must be recognized out of doors, as well as in the house, that the child may early learn to notice and enjoy the differences of form and color in the general appearance of the growing tree or plant.

In the first volume of Agassiz' Contributions to the Natural History of the United States, he shows that of the six divisions of animals (branches, classes, orders, families, genera, and species), the family is characterized by a resemblance of general form. There is, doubtless a close analogy in the principles of classification that must be adopted in botany, to those which Agassiz develops for zoology. As a general rule, the plants which belong to one family are recognized by a general resemblance of form in the flower, fruit, and seed; while, to distinguish a genus, attention must be paid to detail; and, in the formation of a class, attention must be paid to organization. Hence the family, both in botany and zoology, is the most apparent of the higher groups in classification, and the best adapted, by its obvious dependance upon form, to be the starting point for a child's comparisons, It is not to be brought, as an exception to this remark, that some of the great families contain tribes bearing no obvious resemblance to each other, but rather should this analogy to zoology be taken as an evidence of the necessity of elevating some of the sub-families in botany to the rank of families.

The second step, therefore, in botanical instruction should be to add to the name of the plant the name of its family, and a perception of the family likeness; so that the child can say, "This is a hazel; it belongs to the oak family, and shows its likeness to the oak in its catkins of staminate flowers, and in the involucre surrounding the nut; this is an alder, which belongs to the birch family, and shows its relation by having both its staminate and pistillate flowers in scaly catkins, having two or three blossoms under each scale." Of course, the teacher must remember the caution which we uttered, in speaking of chemistry, and not allow the child to think that a few words, such as those here given, can embody all the points of resemblance which characterize a family. Much less should the child be permitted to learn any truth of this kind by rote. Verbal memory has an important place in a true scheme of education, as we shall endeavor to show in our next article. But the very object of introducing geometry, botany, and zoology, into our course of studies is defeated, when the pupil is required to commit the words of the text-book, or formulas given by the teacher, to memory. Yet, so accustomed are some teachers to this mode of instruction, so incapable, apparently, of conceiving of any better plan, that we have known a teacher require her pupils to repeat the words of Dr. Oray's "How Plants Grow;" evidently thinking that she was using, while she was abusing, that excellent little book.

The book just named may be taken up, as the third step in botanical study, at the age of ten or twelve years. If deferred to a later period the study becomes distasteful, as the habit of observation becomes weaker from the distraction of the mind by other cares. It is easy to give to the child, during the ten years between five and fifteen, a perfect familiarity with three or four hundred species of common plants, such as he meets in every walk. This labor spread over so long a series of years would be by no means onerous; and the names and facts impressed upon the mind in that tender period will never be forgotten. If it be objected that there is no text-book prepared for the use of children too young to use "How Plants Grow," we reply that the plants themselves should be the text-book. The only artificial help in teaching botany to children in the sub-primary school, which, we think, would prove really valuable, would be a series of thirty or forty charts, each containing the illustrations of some one important family,—magnified drawings of the peculiarities in the organs of fructification characterizing each family,—with perhaps a drawing of a few of the common species.

Zoology is not forced upon the child's attention so frequently as botany in the natural world. Yet, from the motion, and still more from the intelligence, of animals, they are even more interesting to the child than plants. Moreover, although physiology demands a knowledge of chemistry, yet the classification of animals, like that of plants, depends principally upon organic structure, and upon the relation of the creatures to the outward world. The child of five years old is, therefore interested to

notice the difference between animals, and to learn their names. In a country school-house, in the month of May or June, it may be that the songs of thirty or forty different species of birds are heard in the course of a single day. It would be no waste of time, but, on the contrary, a thing of inestimable value, should the teacher enable his pupils to distinguish these birds by their song, learn their appearance and habits, and the families into which they are grouped. The fear is sometimes expressed, by our poets, lest a scientific acquaintance with flowers should destroy their beauty; and lest the song of the bird might have less melody when the songster had had been burdened with a barbarous Latin name; but among our acquaintances we have not found these fears realized. On the contrary, a thorough scientific acquaintance with the beautiful objects of nature only increases the pleasure which we take in beholding them. The syntactical parsing and metrical analysis of an ode will not injure our appreciation of its melody and its sentiment, provided the composition has true lyric merit. The beautiful in nature will bear the closest criticism, and the longest investigation, without ever "palling upon the sense." "Nature," says the Concord seer, "never became a toy to a wise spirit." The wisdom and beauty, embodied in each organic work of nature, is "not only vast, but infinite," so that there is no possibility of exhausting it.

The insects in any given country are, at least, as numerous as its plants. The mysteries of insect transformation, the wonderful mechanical instincts that many of them display, the brilliancy of the colors of some, and the pertinacity with which others thrust themselves upon our notice, render insects peculiarly fitted to engage the childs attention, and to serve as a basis for incidental instruction in zoology. In this class of animals the orders are more conspicuously distinguished than the families; and it will, perhaps, be best to content one's self, at first, with teaching the child to refer insects to their orders. Insects are so easily preserved in their natural appearance, that we should suppose each school might have a small collection of the most common species to be seen in the neighborhood, grouped in their orders and families, to serve as a reference for any insect which the child might catch and bring in. We are aware of the vastness of the field of zoology, and of the impossibility of a child learning to regnize more than a very small proportion of the insects of his neighborhood. Yet, on account of this very magnitude, we would say, let his attention be early directed to this field; so that, if it should prove to be one in which he is peculiarly fitted to labor, he may have the advantage of an early beginning. We would also repeat the caution to be exact in the ideas which are given to the pupil. The main object in these first scientific lessons must be to induce the spirit of exact, patient observation; calling the child's attention to differences as carefully as to likenesses, and to the fact that the likeness in one part does not necessarily imply a likeness in other parts. The foliage of two trees may be almost identi-

cal, while the flowers and fruit are exceedingly diverse. While this spirit of patient and exact observation is cultivated, general principles, already discovered by the inductive philosophy, and firmly established, may incidentally be placed before the mind of the pupil, a clear guide to his sense and reason.

Comparative anatomy will thus be naturally begun at an early period. The homology of the parts in vertebrate animals with those of the child's own body will naturally be the subject of continual lessons, and the difference between these, or the organs of insects and crustaceans, must also be pointed out. Human anatomy and physiology have been introduced into many of the schools of New England during the last fifteen years with very great zeal; they would be much more effective, more interesting, and more valuable, if they were preceded by the lessons concerning which we have now given these brief hints. It is against the course of nature to call the child's attention too early to the functions of his own body. A better result, intellectually and morally, might be attained if the teachers and parents took care of the diet and exercise of the child, his clothing, and the temperature and ventilation of the rooms in which he sleeps and studies, until at least the age of thirteen to fifteen years. The mind would then have been prepared by previous studies for understanding the subject intellectually, while the greater development of the observing powers would prevent the danger of premature and excessive habits of mental introversion. The study of our own bodies approaches nearer to psychology, forming a natural introduction to it, and should, therefore, come last in the studies of Natural History. The study of anatomy and physiology naturally and inevitably leads the child to a psychological investigation into the facts of consciousness involved in the exercise of many of the functions of his own frame. In the tabular view the words Anatomy and Physiology ought to extend into the first year of the high school.

The importance of beginning botany and zoology in the very earliest years of school life, as we intended to have placed them in our tabular view, cannot be fully estimated without taking into consideration also their connection with the other branches of education. The habit of constant, attentive observation, surely learned in no other way than through early practice in these sciences, is of immense value in every walk of practical or speculative life. The habits of animals, and the manifestation of their various gifts of instinct and intelligence, are the best stimulants and aids to psychological research, as we intend hereafter to show. So, also, in theology, there is nothing more certainly adapted, in a scheme of intellectual education, to foster reverential views of the being and providence of God, than to observe the lilies of the field how they grow, and to consider how He openeth his hand and satisfieth the desire of every living thing. But this consideration will be brought again into notice when we approach the fifth division of our hierarchy.

In their relation to the mathematical and to the artistic culture of the child, botany and zoology have also a peculiar value. Leaves and flowers, and insects, are admirable objects, from which the child may make his first attempt at drawing,—and the forms of organic life constitute the most beautiful of the unsolved problems which are now presented to the geometers of our race. The pressed leaves and mounted insects, kept in the school-room as types and standards for botanical and zoological reference, may also be used as drawing-patterns of the highest excellence. The insects could not be safely removed from the glass case in which they should be kept; but the pressed leaves, as being more easily replaced, if injured, might be taken to the child's desk, or to the blackboard. Nor is it unworthy of notice that the exercise of recognizing birds by their notes is of great value in the cultivation of a quick and exact musical ear.

Finally, among the prominent advantages of this early introduction of the study of Natural History, must be placed the fact that it accords with the child's tastes, as well as with the natural order of intellectual development. All children are pleased with crystals, plants, flowers, insects, birds, and beasts, and are interested in intellectual and spiritual truths only when dressed in living figures. By following, therefore, the example of Nature, and speaking in parables to those who cannot understand the truth in other forms, we not only adopt the most successful mode of conveying the truth, but one of the most efficacious of all modes to afford the child the means of present and future happiness.

Of the course of instruction above the primary schools we need not particularly speak, since the general principles are easily applied to the whole course. We should simply say, that, in proportion as the pupil's mind enlarges, the course of physics should deal more with general laws, and less with the details by which those laws are established. This is, of course, on the supposition that the education is designed for the general purposes of liberal culture. Physics and Natural History have been unjustly neglected in many plans of education; but it would, by no means, restore the course of study to a right balance, if, after introducing these sciences in their proper place in the earlier years of school life, we should afterwards allow them to expand and fill the years of the collegiate term, when the student ought to be more fully employed in political, psycological, and theological inquiries. In the grammar and high school, after a proper preparation in the younger grades, we can readily give as much of the mechanical sciences as it is profitable to teach to those who have no special aptitude for the studies. With the preparation now given in the primary and sub-primary schools, this is impossible; and a part of the collegiate course is of necessity occupied in giving instructions in the physical sciences better adapted to children than to youth. The preparation of such excellent text-books as Guyot's Earth and Man, and of Agassiz' and Gould's Zoology, is thus rendered a thankless work; these books

which are adapted for the widest usefulness, are, by the insufficient preparation of the younger scholars, confined to a few of the more advanced high schools and academies. Changes in the system of public education are usually made with difficulty, and it is, doubtless, well that it is so; since otherwise our schools would suffer even more than at present, from the eccentricities and errors of those who have control over them. At present the legal guardians of the school, the teachers, the scholars, and the parents, constitute four classes, who resist any change, whether for better or for worse. In the changes which we are, in these papers, advocating, the difficulty will be still greater, from the fact that the proposed alterations imply an alteration from the very beginning of the educational course; and our views concerning the high school are perfectly impracticable, unless the children in the high school have been from infancy accustomed to exact observation, rapid and accurate conception, and familiarity with the results of cautious and sound inductive reasoning. So far from this being the case in the ordinary schools, that we may more truly say the child is taught to neglect observation, to abstract his mind from things to books, to repeat words without clear conceptions, to adopt the results of hasty and unsound speculations. If the reader think this language too strong, let him reflect that into not one school in a thousand are crystals, minerals, plants, insects, etc., brought for examination;—let him remember that among the teachers not one in twenty even knows the difference between a moss and a lichen, a bug and a beetle, a moth and a butterfly, and not one in fifty but would reprove a child for bringing such things into the school-room;—let him recall the fact that, in spelling, the child is systematically taught to deny the truth of his own sense of hearing; so that, by the age of fifteen, nine-tenths of our children have begun to hear, in the spelling and in the pronunciation of words, sounds that do not exist, and not to hear sounds that are distinct;—let him remember that, in the majority of schools, drawing is not taught, and, when taught, it is usually drawing from a copy, so that it feebly exercises the observing powers, or it is inventive drawing, which does not develop the observing powers at all;—let him remember how much time is given to arithmetic, not to counting beans, arranging them in groups, etc., but to abstract arithmetic, which, even in its so-called practical examples, usually excites the conception only of the names of number, or of the appearance of the Arabic notation; to arithmetic, which was introduced into the primary schools only after a long struggle against the tyranny of grammar, and has now become King Stork more intolerable than than the King Log;—let him remember that geography is the only science of observation in our schools, and that geography is often a mere getting of words by rote, and even at best, in the primary schools, only occupied with the observation of maps, instead of the observation of things;—let him remember all this, and he will, at least, see how poorly the primary and sub-primary schools prepare the child for any scientific studies in the grammar and high school.

For this reason, in all these papers, we occupy ourselves more especially in indicating what we conceive to be the true mode and time of beginning each study, and pass by the studies of the high school and college; not that we take less interest in the studies of the more advanced student, but because we are convinced of the absolute necessity of beginning well, if we would produce the highest educational effect. Each day's mental state depends, in part, upon the previous education; and we cannot say how early this process of education begins to influence the mental development. For our part, however, we have long held, what we find to have been the opinion of Comenius (Amer. Journ. of Ed., vol. v., p. 281), that education begins before birth, and is received through the mental and physical condition of the mother.

MORAL AND RELIGIOUS INSTRUCTION.

"He that oppo-es moral and religious instruction in our schools is a virtual enemy to himself, to he world, and to G-d. When the world is fully enlightened it will thrust such a one from society, even as Vulcan was thrust from Heaven for defending wickedness.—*A. Pickett's Opening Address before the Teachers' Association at Madison*

What a mass of bigoted inhumanity is condensed in these few words? Why go so far back as to borrow a lame likeness from the Greek Mythology? Why not burn "such a one" at the stake of the Christian Dominicans? Could not any one oppose "the moral and religious instruction in our schools," because he thought it was not in the right place there? And now I declare myself such a heretic, or outlaw, regarding religious instruction, of course expecting a less severe judgment of the enlightened world.

According to Webster, the words "moral," and "religious," are of a quite different meaning, and ought not to be used as synonymous. Morality is the complex of all virtues, and should be taught everywhere; while religion always refers to a certain creed which a certain portion of makind has about a Supreme Being, or God; although every religion has its code of morals, which is embodied in and adapted to that creed. Morality belongs to all men alike—is the same with all men, while religion embraces only those who participate in the same creed, or idea of God. If, now, in a commonwealth like ours, men of different religions have the same rights, as citizens, how is it possible that any religious instruction could be given in the common schools? It is utterly impossible; and, therefore, the Constitution of the United States, and of our own State, guaranteeing the freedom of conscience, forbids all sectarian instruc-

tion; yea, the Statutes bind the Superintendent of Public Instruction, under oath, to oppose the same, and to see that no sectarian text-books are used in our schools.

But every religion, compared with other religions, is sectarian, and this word by no means comprehends only the different confessions and denominations of a certain, *i.e.*, of the Christian religion. The freedom of conscience, however, cannot be encroached upon by the vote of the majority, because it is the inalienable birth-right of man. Nobody will dispute the above-stated averments, either regarding the logic or the etymology. We find, however, down East, the legal enforcement of using the Bible as a text-book of morals, of teaching religious piety, and of opening the schools with prayer. And even here, out in the far West, we meet everywhere with the intention to follow suit. The Superintendent of Public Instruction, as well as many of the teachers of Wisconsin, The Journal of Education witnessing this fact, urge the conversion of our free common schools to sectarian institutes of the Protestant confession of the Christian religion, by making similar propositions. Are not, then, the Catholics right, who oppose openly the free common school system in order to have their portion of the public funds for school purposes assigned to themselves for Catholic schools? Have not the Jews, a considerable and honorable portion of our citizens, the same right? Are not the Pagans, or even Atheists, entitled to the same demand? Common justice would answer—they are.

But, can this be done without destroying our whole free common school system, which works so admirably, notwithstanding it is tinged with that religious atmosphere in some parts of the country? Let us save that glorious system untouched, as the Constitution guarrantees it, in order to avoid the union of Church and State as a Church-establishment, wherewith the freedom of conscience is lost, and then, of course, every social and political liberty is gone. All these things,—praying in Congress and Legislatures, praying in schools, laws to enforce the holy keeping of the Sabbath, religious instruction in schools, the use of the Bible in the same as the word of God—are, indeed, but preparing the way for such an event. He who has felt the incubus of a Church-establishment himself is best prepared to judge about that liberty-destroying monster. But the union of Church and State, and the baneful influence of the Church, which the same wields over the masses by the religious instruction in the common schools, is the reason that despotism holds the people of Europe in shameful bondage, is the sole reason of the possibility of its existence.

And another very important argument against religious instruction in schools should be very well considered. The question might arise, which confession of the Christian religion would come victoriously out of the quarrel which would necessarily follow if religious instruction was introduced in schools? Would it be Protestantism, with its many denominations, whose very principle of free inquiry destroys any authority? or

would it not rather be Catholicism, centralized in the authority of the church, and strengthened by that so infinitely? Have we not already the show of a grand Catholic officiating at the opening of Congress? Do we not see our President and Cabinet present when Archbishop Hughes dedicated a Catholic church in Washington?

We ought to do what we can to keep the mind of the young generation free from any religious influence, at least, in schools. We owe it to the names of the immortal framers of the Constitution. We owe it to our descendants, who have a right to expect that we deliver to them the liberty which our ancestors won for us.

And, again, I ask, have they more morality down there where they have Bible reading, prayer, and religious instruction in schools, than here, where they have it not? The statistics of prisons, and poor-houses, and of crime generally, answer in the negative. Why, then, in the name of common sense, should we give an opportunity for religious quarrels by favoring an unconstitutional introduction of religious instruction in our free common schools? I shall abstain from giving the incompatibility of the Bible, as a reading book in schools, or as a text-book for morals, and simply ask if there is any teacher in the whole country who would take the responsibility of giving that book into the hands of his pupils indiscriminately without burdening his conscience with the fear that the unsuspecting mind of the young reader might receive impressions which would spoil it for a lifetime? The prayer at the opening of the school, is, at the best, a waste of time which ought to be devoted to other ends, for a pupil, attentively reading the Bible, could soon prove to his teacher that the Bible itself forbids public prayer; the philosophical mind of another could puzzle the teacher by asking how prayer could encroach upon the eternal laws of nature. A third, perhaps, a little versed in politics, would show its unconstitutionality.

At length religious instruction can be given by any teacher, but according to his special religious creed, except he be a hypocrite, or, what is the same, a knave, and is, therefore, sectarian anyway; thus constitutions and statutes forbid the same. The address of Dr. E. G. Kelly before the Essex County Teachers' Association, at Danvers, Oct. 14th, 1859, treats the same subject; and I agree generally with him, although I disagree with him somewhat concerning the Bible. You may read the address in the Newburyport Herald, or an extract from the same in the Boston Investigator of Nov. 30th, 1859. B. O. ZASTROW KUSSOW.

CEDARBURG, Ozaukee Co., Dec. 4th, 1859.

IT often happens that those are the best people whose characters have been most injured by slanders.

TEACHERS' EXAMINATIONS.

THE commencement of every new school year brings with it a season of teachers' examinations—I do not mean the annual farce of calling the teachers together to see which can answer correctly the greatest number of set questions, and where, as at all school examinations, the most brazen faced always come off with "the highest honors"—(as though there could be any true test of a person's "ability to teach" aside from actual trial in the schoolroom)—that is not the examination I refer to, nor the one I deem most important; but rather that rigid *self*-examination, that close scrutiny into the heart, scanning well all its secret springs of thought and action, that every true teacher must feel who realizes as he ought the importance of the position he occupies.

To the mind of the teacher, often, and especially at the beginning of each term, such questions as these will arise: Do I fully realize the extent of the influence I daily exert over these youthful minds? that day after day impressions are made that never can be effaced? Am I careful that as the mind expands, and new thoughts and facts are being constantly received, that these shall be intermingled with such as are calculated to make the scholar better as well as more learned? Are his moral as well as intellectual and physical powers being properly educated? Above all, am I sufficiently watchful over myself that every thought, word and action as exhibited before my pupils, be such as may be safely imitated?

The teacher's mission is an important one. In the schoolroom impressions are received and characters formed that last through life—nay, more, that will endure as long as the mind itself shall exist. Each day is as it were, a blank page upon which ineffaceable characters are to be written, and he who would rightly enter upon its duties should himself first receive instruction at the feet of the Great Teacher. F.

HOME CONVERSATIONS ABOUT SCHOOL.

Now, my dear children, come, we will sit down together and talk for a few moments about school. Your mother has a great deal to do this morning; hurry; get together quickly; I have no time lose. It is Monday morning—washing, dinner, and the duties of the week say there must be no delay. You are now for the first time to leave home for direct instruction. I shall be thinking about you and praying for you all day; and oh! how anxious I am to have you obey your teacher, and set a good ex-

ample for the rest of the pupils. I have spared no pains to teach you the principles of correct action. I believe, aye, I *know* you are truthful. You know what it is to equivocate, and yet, I am happy to know that you have not learned to do so. You have heard vulgarity and profanity in the streets, and from children with whom you have played, and yet you are free from the use of it. You go now among boys and girls who may not have had the care and attention bestowed upon them that you have. Your mother will not be there to watch the influence of all the novelties, and warn you of the dangerous ones.

You may hear improper language; you may see queer actions, some may be unfair in their play—they may deceive and prevaricate; others may be abusive if you do not enter into their sports; if you do not approve of all they do, they may be offended, and laugh you to scorn. You will not be entirely unprepared for this. They may call you cowards and ninnies, if you will not box or throw each other down. You will have thoughts and feelings after this which you have not had before; remember them. I hear that Miss Newcomb, who is to be your teacher, is a lady of experience, rare qualifications, and extraordinary refinement. I shall make her acquaintance very soon. From what I hear she will exact the strictest obedience, and upon the slightest misdemeanor. See to it, dear children, that you encourage her by perfect conduct, noiseless study, and ready attention. Remember her instructions of to-day. Retire now into your closets, ask God to guide you by the influence of his Holy Spirit to do what is right; watch yourselves closely, and this evening bring me a clear report.

Now a kiss—good bye—away to your closets, and then to school.

SALARIES OF FEMALE TEACHERS.*

"The same amount of labor should be remunerated with the same amount of money, whether the work be performed by man or woman." This sentiment has been most courteously forced upon me that I may present it in such a light as to place before your minds some thoughts for the consideration of the members of this Association. I am aware in so doing I am only bringing old truths to your remembrance; for the subject is one on which it would appear that every idea possible had been long since advanced. But, although it has been agitated, and so long

* Read before the Walworth County Teachers' Association, Dec. 27th, 1859.

agitated that both sides seem nearly, if not quite, threadbare, I conclude there must be some part—it may be in its very center—which has not yet been reached, or you would not have desired its discussion here. Every enterprise or department of labor or trade should be remunerated in proportion to the amount of capital employed. This *all* will admit, and, therefore, it simply remains for me to apply it to my subject. We mention first the expenditure, in a monetary view, requisite to prepare persons to impart instruction, in a given degree, is the same in each individual case. Also, that the time necessary to the full development of those faculties of the mind which are absolutely essential to our improvement in any one thing, and without the proper expansion of which there can be no true teaching, must be equally long. Again, the labor expended in bodily toil, the closeness of application, rigor of discipline, and every other demand, must be dealt out under the same stern rule, let it fall on man or woman. If, as some claim, the weaker vessel doctrine be applicable to the mind of woman, it must, of necessity, require more capital of time, labor, and money to raise her to the position requisite to the performance of the equal amount of labor demanded. If this be true, that the same amount of outlay of money, time, and labor be demanded to prepare a woman for the work of teaching as to prepare a man, then most certainly ought she to receive equal remuneration.

It is a sentiment to which the heart of man responds in nearly every act of life, "that we recompense according to the good done." If I snatch a child from the flames, and thus save his life, although at the same time endangering my own, am I not deserving of as many thanks as hough I possessed the sterner qualities of a man? If, in any given instance, woman is deserving of as great an amount of gratitude as man, is she not as much entitled to an equal recompense where it is presented in a tangible form as material aid? This holds true in all cases, whether in the labor of the mind, or body, or both. Take, for example, teaching. Is not the same benefit derived by the pupil when the instruction is imparted by a woman, with all the gentleness and affection known only to her, as when by the coercive power of man?

What is the true object of teaching? Is it not inciting to right action by culture of right principles implanted in the mind and heart? The heart, which is the fountain from which emanates every desire, either of good or evil, *must* be reached. The cause of error must be removed before we begin to work against its effects. The seeds of vice and ignorance already germinated within the heart, must be eradicated, and in their place the tree of knowledge must be rooted and grounded, which shall produce the friuts of Virtue, Truth, and Justice. The mind is placed in the hands of teachers, "as clay in the potter's hands," and they mould it as they

will. They elevate it and expand its desires and capabilities to the capacities and enjoyments of an angel, or they destroy all that is good within it, and make it a demon. This can only be done by line upon line, precept upon precept, example upon example, by being in reality what we seem to be. We must be instant in season and out of season, never wearying of well doing.

Who more fitting to do this great work aright than woman? That woman can more effectually reach the heart than man, is granted by all. Let a man gain the affection of a child, to the very best of his ability—there are chords which can be vibrated only by the gentle touch of woman; there are doors within their heart of hearts which are too sacred for the entrance of any save woman. If, then, woman is capable of doing the same amount of good, she ought to be remunerated accordingly. We ask not for woman's rights as they are loudly called for by some; we seek no admittance to your Halls of Congress, and Legislative bodies—such we leave for men to fill. But we not only ask, but *demand* that where we perform the same amount of labor that you do, we may be equally rewarded. Give us this and we are content to toil on in our noble work, and so educate the youth that we may speak through them; that we being dead may in and through them live. And we ask it as a right,—for, if the conclusions which have been drawn are true, then, in all Justice, woman should be remunerated the same as man for an equal amount of labor performed.

LIZZIE BRADFORD.

THE QUIET SLUMBER.

Lay him gently to his rest;
Fold his pale hands on his breast;
From his brow—
O, how cold and marble fair—
Softly part the tangled hair:
Look upon him now!
As a weary child he lies,
With the quiet, dreamless eyes,
O'er which the lashes darkly sweep,
And his lips the quiet smile—
The soul's adieu to earthly strife—
And on his face the deep repose
We never saw in life.
Peaceful be his rest, and deep:
Let him sleep.

No tears for him! he needs them not:
Along life's drear and toilsome road
Firmly his manly footsteps trode,
Striving to bear his weary lot,
With such a pride upon his brow,
With such a pain within his heart,
The firmness of a manly will
Vailing the secret smart.

O, it is well the strife is o'er,
That thus so peacefully he lies,
Unheeding now the bitter words,
The cold, unpitying eyes.
Fold his mantle o'er his breast;
Peaceful be his sleep, and blest:
Let him rest.

No sigh to breathe above his bier,
No tear to stain the marble brow;
Only with tender, pitying love,
Only with faith that looks above,
We gaze upon him now.
No thought of toil and suffering past—
But joy to think the task is done,
The heavy cross at last laid down,
The crown of glory won.

O, bear him gently to his rest—
O, gently heap the flowery sod,
And leave his body to the dust,
His spirit to his God.—*Student and Schoolmate.*

ÆSTHETIC EDUCATION.—III.

SOME OF ITS RESULTS.

Thus, in these random articles on art, have we endeavored to show, I., its unappreciated utility,* and II., the practicability† or the possibility of making it universally useful. In the present number we propose to pre-picture the possible results of universal æsthetic education.

* February No., 1859. † June No., 1859.

There is a conceivable state of society in which humanity has its whole nature educated—all the powers developed to the greatest possible perfection. In this possible state of society the education of the innate faculty of enjoying the beautiful would not have been neglected. In such a community we could not say what art would be, but we think it would not be what it is at present,—full of the tricks and peccadillos of pseudo orators. In painting there will not be such a passion for old works, merely because they are old, not because they contain any "lost art," but are verily no better than the daubs the house-painters palm off as "originals." In sculpture we should have less of hideous and more of the loveable, and that in a less stilted style. In architecture—the natural outgrowth of beauty upon utility, and the only art, except music, cultivated to any extent in this country—there would not be so much ostentation, and so little real fitness. There would not be such utter disregard of the harmonies of form and color. Architects would not be so culpably ignorant of that architectural language which has been eliminated from the forms of nature by the toils of nations for ages,

"And graven in the rocks forever."

If they understood the language of their art, there would not be in rural architecture this perpetual discord and expensive war between nature and this art; in public architecture there would not be so much senseless ornamentation, and the true ornament would not be covered by broad, black, and glaring signs, which perform the same office for the street the showman did for the picture when he said: "This, ladies and gentlemen, is a picture of Daniel in the lion's den. Daniel may be easily distinguished from the lion by the green cotton umbrella he carries under his arm." Perhaps there is a necessity for these unarchitectural signs; they certainly perform the prime office of masks, showmen, and green cotton umbrellas. If so, they should be woven into the architecture so as to make a harmonious whole. In poetry, in music, in engraving, in dancing, in landscape-gardening, indeed, in all art, if art is all that elevates, refines, and ennobles the life. There would be less that is arbitrary, and more of the spirit of republican institutions—an exultant liberty.

„I dream of all things free, of a gallant, gallant bark
That sweeps through storm and sea like an arrow to its mark;
Of a stag that o'er the hills goes bounding in its glee;
Of a thousand flashing rills—of all things glad and free.
My heart in chains is bleeding, and I dream of all things free."

We have said that art is the only universal language. It is not only so, but it is the only door left open to the minds of oppressed millions,—

it is the only vehicle for the conveyance of free thought to their cultivated but ignorant minds. It treads upon an avenue which tyrants dare not, cannot obstruct. Let us fill this vehicle with all that makes our country, our institutions, our history, grand and glorious. Let us have a new school of art, "an American school," which shall be as grand as our prairies, as free as our institutions, as progressive as our history. Let us but do our duty to and through art, and we shall send an earthquake wave under the propped up monarchies of Europe, which shall topple them into oblivion, that eternal prison house of the past.

There is dawn upon the horizon as well as darkness. The sad privation of Ruskin should be transposed. There is the dawning of a brighter day. I see it in the last great work of "the great Church." I behold it in some of the works of the American sculptors. I hear in the lovely psalm of the Quaker poet:—

"And so the shadows fall apart,
And so the west winds play,
And all the windows of my heart
I open to the day."

G. B., ARCHITECT.

Superintendent's Department

OPINIONS, &C., FROM THE OFFICE OF THE STATE SUPERINTENDENT.

(*Continued from the January Number.*)

Q. In the division or alteration of districts, can the Town Superintendent draw an order upon the Treasurer of the District whose territory has been diminished, in favor of the District formed by him?

A. He can not. The law provides that, when a new district is formed in whole or in part from one or more Districts possessed of a school-house, or entitled to other property, the Town Superintendent shall, at the time of forming such new district, ascertain and determine the proportion of the value of the school-house and other property justly due to such new District. Deducting from this amount the same proportion of any just debts due from the old District, the Town Superintendent must certify to the District Board of the old District the balance, as the amount justly due from it to the new District. Upon receipt of such certificate,

it is the duty of the District Board to assess and collect, by tax upon the taxable property of the District, the amount certified by the Town Superintendent, in the same manner as other District taxes are collected. As soon as collected, the money must be paid over to the new District.

Q. How must the money, collected and paid over as above, be used by the new District?

A. It must be used in building a school-house, and for no other purpose. The amount received on account of each individual tax-payer, ascertained by determining his proportion of the taxable property set into the new District, may be passed to his credit in abatement of any tax levied for building a school-house.

Q. If the amount received on account of any individual tax-payer exceed his proportion of the tax levied for the purpose of building a school house in the new District, can he draw the balance in money from the Treasury of the new District?

A. He can not. The money paid to the new District on his account can be used for no other purpose than for building a school-house.

Q. Has any person, set from one district into another already organized, any claim upon the district from which he was set, on account of his interest in the property in his former district?

A. He has not. It is presumed that interest acquired in the District to which he is attached will balance any loss of interest in property in the District from which he is removed.

Q. Does Section 54, School Code for 1859, or Section 54, Chapter 23, Revised Statutes, refer to apportionment made by State or Town Superintendent?

A. Evidently to apportionment made by by Town Superintendent, as the State Superintendent apportions only to Towns and not to Districts.

J. L. PICKARD,

State Supt. Pub. Ins.

NOTICE.

As it is my purpose to visit, so far as possible, the several counties of the State, I hereby invite correspondence upon the subject with officers of County Teachers Associations. Address, J. L. PICKARD, *Madison, Wis.*

Mathematical Department.

Solution of Problem No. 17.—Let $\frac{x^2}{y}$ = the first number, x the second, y the third, and $\frac{y^2}{x}$ the fourth number; then from question $\frac{y^2}{x}-x=24$. Clearing of fractions, $y^2-x^2=24x$. From another condition of the question, $\frac{x^2}{y}+\frac{y^2}{x} : x+y :: 7 : 3$; which converted into an equation equals $\left(\frac{3x^2}{y}+\frac{3y^2}{x}=7x+7y.\right)$ Clearing of fractions and dividing by $x+y$, $3x^2-3xy+3y^2=7xy$. Transposing, $3x^2+3y^2=10xy$; multiplying equation first $(y^2-x^2=24x)$ by 3, and subtracting the product from equation second $(3x^2+3y^2=10xy)6x^2=10xy-72x$; dividing by $2x$, $3x=5y-36$, $x=\frac{5y-36}{3}$; substituting this value of x for x in equation first, and clearing of fractions, $9y^2-25y^2+360y-1296=360y-2592$; Transposing, $16y^2=1296$. Then $y^2=81$, $y=9$. From equation first $x^2+24x=81$. Adding 144 to both members $x^2+24x+144=225$. Extracting square root, $x+12=15$, $x=3$. Then $\frac{x^2}{y}=1$, and $\frac{y^2}{x}=27$. The numbers, then, are 1, 3, 9, 27.

W. B. RYDER.

Solution of Problem No. 17.—Let x be the first number, xy the second, xy^2 the third, and xy^3 the fourth. Then, by the question, $x+xy^3 : xy+xy^2 :: 7 : 3$. Therefore, $3x+3xy^3=7xy+7xy^2$. Dividing by x, transposing and factoring, gives $(y-3)(3y^2+2y-1)=0$; from which we find $y=3$. According to the problem, $xy^3-xy=24$. Substituting in this equation, the value of y gives $x=1$. Hence the required numbers are readily found to be 1, 3, 9, and 27.

L. CAMPBELL.

Problem No. 34.—A cone 3 feet in diameter at the base, 150 feet altitude; required the length of a rope 1 inch in diameter commencing at the base and coiled around so as to cover the entire surface of the cone.

DARWIN WOODWARD.

Problem No. 35.—Required the greatest rectangle that can be cut from a semi-ellipse, the greater diameter of the ellipse being 10 inches, and the less 6 inches.

Problem No. 35.—Given $x^3+x\sqrt{x}=\frac{5}{\sqrt{x}}-8$ to find x.

Problem No. 36.—The number of cubic feet in a certain globe added to the number of square feet in a circle of the same diameter is equal to 1000 diminished by twice the diameter of the globe. Required the diameter of the globe and the area of the circle.

Ed. Journal.—I send the following rule, found in Geometrical Progression in Adams' New, and other arithmetics, requesting an explanation of the reason of said rule: "When the first term, the ratio, and the number of terms are given to find the sum or amount of the series, raise the ratio to a power whose index is equal to the number of terms, from which subtract 1, divide the remainder by the ratio, less 1, and the quotient, multiplied by the first term, will be the answer." We know that the above rule will give the required result, but why? Why do we raise the ratio to a power whose index is equal to the number of terms? Why do we subtract 1? Why do we divide the remainder by the ratio, less 1? Why multiply by the first term? It is too common a practice to be satisfied with getting the pupil so that he can perform the examples by the rule, and leave the reason of the rule unexplained, when the reason is what is most wanted. W. R. Patchin.

[We are obliged to omit a number of problems and solutions on account of delay in obtaining the necessary cuts.—Ed.]

Music.—There is something very wonderful in music. Words are wonderful enough; but music is even more wonderful. It speaks not to our thoughts as words do: it speaks straight to our hearts and spirits, to the very core and root of our souls. Music soothes us, stirs us up; it puts noble feelings into us; it melts us to tears, we know not how; it is a language by itself, just as perfect in its way as words: just as divine, just as blessed.—*Kingsley.*

Editorial Miscellany.

PERSONAL.—Having received an appointment to the office of "Assistant Superintendent of Public Instruction," the undersigned has tendered to the Board of Editors his resignation of the position of Resident Editor of the Journal, and his connection with it will cease upon the selection of his successor. Until such selection, he will continue to exercise a general supervision over the publication of the Journal, and will employ competent persons to perform the necessary labor. All communications relating to the Journal may be addressed as heretofore, "Journal of Education, Madison, Wis.," and the private address of the undersigned will, until further notice, be "Madison," instead of "Palmyra," as heretofore.

A. J. CRAIG.

MADISON, Jan. 10th, 1860.

BURLINGTON, Racine Co.—We learn from the Gazette that the Union School opened for the winter term on the 9th ult, with two hundred pupils, and more in prospect.

LAWRENCE UNIVERSITY.—The winter term of this excellent University commenced on Thursday of the present week. We are informed that the University has never before opened with so large a number of students as the present Term. Parents! Appleton is the place to send your children.—*Appleton Crescent.*

DANA P. COLBURN.—In our last issue we noticed the sudden death of this gentleman, and we now quote the following brief notice of his career from the New Hampshire Journal of Education:

"Mr. Colburn was born in West Dedham, Mass, in 1824. At the public schools he was marked for his earnestness in study, and his fondness for mathematics. At the Normal School in Bridgewater he attracted the attention of the Principal, the late Mr. Tillinghast, and of Mr. Mann and Dr. Sears, by both of whom he was employed to instruct in the Teachers' Institutes of Maccachusetts. In 1855, when only thirty-one years of age, he was appointed principal of the R. I. State Normal School, which, although a new institution, had already, under his management, taken a high rank, and attracted to itself many pupils from other States. He had prepared several text-books upon Arithmetic, all strikingly marked with the characteristics of his own felicitous method of instruction. His mind seemed to reach conclusions with the rapidity of intuition; and yet the reasoning process was always there, and he could trace it out, and lead the charmed and wondering pupil through it. And yet, he was not a mere mathematician. Hearing him in-

struct a class in any department, you would think that must have been his favorite study. A correspondent of the Providence Post very truthfully says: 'He had a singularly quick and alert mind, great professional enthusiasm, a transparent countenance and kindling eye, a fine command of apt language, and great powers of illustration, aided by extensive knowledge both within and outside his special circle of studies. With these rare gifts for teaching, and a high reputation as an author, he was far from being a pedant or book worm. He had fine conversational talent, ready wit, and a fondness for the play of ideas and words, as well as for manly sports and social gatherings, which made him a favorite companion in many widely different spheres of acquaintance. All these qualities seemed in him the natural overflow of an uncommon fullness and exuberance of life, which must seek expression alike in faithful performance of duty, and in all the sportive activities of his leisure hours.'

"With large plans for a busy and joyous life, in the prime of early manhood he has been smitten. He was working well. Those who knew him best, believe that, being fully prepared for his sudden departure, he has entered the eternal rest."

GLOBES.—It is pleasant to observe that artificial globes begin to be appreciated in this country. Hitherto they have been much neglected, even by those who take a deep interest in education. In Europe the fact has been the reverse, especially on the continent. There is scarcely a respectable family of literary or scientific taste in France, Prussia, Bavaria and Saxony without at least a terrestrial globe, which is considered necessary to read even the daily journals intelligently. In the same countries there is scarcely a school at all without a pair. No sooner has a German or French child learned the definitions in his geography than his young mind is exercised on the artificial globe, so that the relative distances of places may be indellibly impressed on his memory. In recent years, England has gradually, though too slowly, been introducing the same plan. Our turn has come at last; and when we begin we do things in earnest. It is quite a favorite habit in the North to sneer at Southerners for their alleged neglect of education; yet there are few unprejudiced persons, who visit the wealthy classes in both sections of the country, who will not admit that, generally speaking, Southern gentlemen have much better private libraries than the same class in the North. Dr. Mackey said, in a recent lecture at Edinburgh, that he saw more artificial globes in private residences in the slave States than among the same number of population in the North, adding that Northerners had taken the hint, and were now introducing globes into the common schools. This is true, and it is an example worth imitating. The few that were used here in former years were imported from England or France. Now they are manufactured on an extensive scale at home, by Moore & Nims, Troy, N. Y., whose Franklin Globes have elicited the highest praise from our most respectable journals. Their sixteen inch bronze pedestal stand pairs are models in elegance, beauty of finish, and accuracy, and have been pronounced, by the best judges, as at least equal to any specimens ever imported, either from Paris or London. These give the isothermal lines of

temperature, the deep sea soundings, the new discoveries by Barth, Livingstone, and others, in Africa, the recent divisions and boundaries in Central America, Australia, and the Arctic Regions. In a word, they are engraved up to the present time. We had intended to give our views, in brief, of the great practical value of some of the various problems in astronomy, as well as geography; which can be performed with little trouble on the globes, by any person of ordinary intelligence; we will, however, make some future observations on the whole subject, which may not be uninteresting to our readers.—*Richmond Whig.*

TOBACCO—A WISE REGULATION.—The Janesville Gazette says that the Board of Education of that city has adopted the following rule in relation to the use of tobacco in the schools of that city: Any pupil attending the public schools of Janesville who shall chew or smoke tobacco, in any of the school buildings in said city, shall be suspended. This suspension will be continued until satisfactory evidence is given that the offence will not be repeated. The rule, it will be perceived, extends to all the schools of the city.

SCHOOLS IN TEXAS.—We quote the following in relation to the schools and school system of Texas from the columns of the Kenosha Tribune & Telegraph, which has a correspondent in that State:—

"Texas has no regular school system, nor can a country so sparsely settled as this have a very perfect one. There are no organized districts, and no law about schools, except concerning the distribution of the public money, and reporting the scholastic population, and schools taught, etc. The State has appropriated two million dollars, and one tenth of the annual State taxes, besides the land grant, as a school fund. The interest accruing from this is the general school fund, and is apportioned, every September, among the different counties, according to the scholastic population. The county courts then pay the tuition of orphans and children of indigent parents, not to exceed ten cents per day for actual attendance for the year past, according to their daily attendance at school.

"All of the schools are, in fact, private schools. The public generally furnish the school buildings, and the teacher teaches at a regular tuition per pupil, and receives his pay from his patrons, excepting the indigent pupils, and those are at his option to take or not. The teacher must report to the county court the patrons of his school, and the number of days each patronises, whether indigent or not, and get the indigent tuition, and that is all he has to do with law, other than his own. The Schools generally commence in September, and continue forty weeks, and are divided into two equal sessions. The general rates of tuition are the following: common country schools, $1.50 to $2.00 per month; high schools (which are by far the greater portion,) primary classes, $10.00 to $12.50; intermediate classes, $12.50 to $15.00; high classes, $15.00 to $20·00; music on piano, melodeon or guitar, $20.00 to $25.00; languages, vocal music, painting, drawing, wax and fancy work, each $5.00 to $10.00 per session for twenty weeks.

"The country schools will average from fifteen to thirty pupils each; the city schools more, according to their popularity. A teacher, to do well here, must not be shifting about, but stay in one place.

"There are some fine schools in the State, but none of them are producing the good that they would, was there more unity. Generally the sexes are separately educated, and the schools are the pets of the different churches, which, together causes much discord. Paris, a city of two thousand inhabitants, has six different schools, and each for itself. Could they all be united into one good union school there would soon be seen much difference in the pupils, though some of the present schools are highly spoken of.

"When I commenced I did not intend to write much on this subject, but I have filled my letter with it; so "bear with me and mine infirmities."

"Yours Respectfully, BADGER."

GRADED SCHOOLS.—We hear of the establishment of new schools of this class in many parts of the State, and the attendance of pupils in all the schools seems to be considerably increased. At Prescott, Pierce Co,, (as we learn from the Transcript,) the school opened on the 1st ult., with 175 pupils in attendance, which number has been considerably increased since. Mr. Hatch is principal, assisted by one gentleman and two ladies. At Brodhead, in Green Co., they have a flourishing school, under the Superintendence of Rev. W. Cochran, assisted by Miss E. Walker in the intermediate, and Miss Cull in the primary department. The Reporter speaks very highly of the condition of the school, and of the qualifications of the teacher. The schools in Janesville, Beloit, Kenosha, Racine, Waukesha, and Milwaukee are sustaining their well-earned reputations, and, so far as our exchanges give any information, or we have been enabled to obtain it from individuals, the Schools of the State generally were never in a better condition.

PENNSYLVANIA NORMAL SCHOOL.—After a careful examination of the buildings, grounds, and facilities for instruction, by a competent committee appointed for that purpose, the Superintendent of schools, on the 3d of December last, officially recognized the Lancaster Normal School, located at Millersville, as a State Normal School for the 2d District composed of the counties of Lancaster, York, and Lebanon. We extract from the Pennsylvania School Journal the following description of the grounds, buildings, departments, etc.:

"The grounds comprise the required ten acres, fronting the Millersville turnpike on the east and south. They are well fenced, and a portion graded and planted. When the grading and other ornamental and useful arrangements contemplated shall be completed, the outdoor means for amusement, exercise, and improvement will be ample. A strong, never-failing spring rises near the west end of the buildings, and a rivulet traverses the whole length of the grounds from north to south, ensuring at all times a liberal supply of pure water.

"The buildings are all of brick, covered with slate, and though erected without

uniformity of design, (being the result of three different additions to the first structure,) yet they are well adapted to the objects in view, and in full conformity with the act of assembly. The south front is 160 feet in length, with three wings or extensions northward averaging 100 feet. It is three stories high, with an attic and basement. This portion is occupied by the male students' apartments, the large Lecture Hall, the recitation rooms, the library, the refectory, and the steward's apartments. The east front is 252 feet long, embracing the recent extension. This last named part is 112 by 40 feet, and four full stories, with an attic and basement. The main stories are devoted to the female students; and, like the building occupied by the gentlemen, are laid out in long wide halls, or corridors, with sleeping apartments on each side. It also contains a guest parlor, and apartments for such of the professors as are in charge of each story. The basement is occupied by the model school. The fifth or attic floor, 112 by 25 feet, is the Ladies' Gymnasium, which is to be supplied with all the apparatus proper for healthful physical exercise. From this room a stairway leads to an observatory on the roof, large enough to accommodate a whole class, and commanding a rich view, quite characteristic of the country.

"The Model School room is 50 by 40 feet, and is a most beautiful and convenient school-room. Connected with it are four recitation rooms and a private room for the Principal. It is furnished with one hundred desks and chairs made of cherry. The blackboard surface amounts to 1200 square feet. The different subjects of study are explained and illustrated by means of globes, maps, charts, models, and various other kinds of apparatus. The number of pupils is sixty,—as many as was desirable the present term, and other applicants were accordingly excluded. The branches taught are the alphabet, pronunciation, spelling, reading, writing, drawing, vocal music, geography, grammar, arithmetic, and the history of the United States. There are about thirty class recitations daily. The classification, government, and general management of the school are under the direction of the Principal of the Model School, who remains all the time in the schoolroom, except when business calls him to one of the recitation rooms.

"The plan of this Normal School provides that, 'The graduating class of the normal course, and such other students of the scientific and classical courses as desire to obtain the teachers' diploma, become the Faculty of the Model School, and do its teaching.'

"The members of the senior class have all been students in the Normal School for a considerable length of time, and have all attended courses of lectures on the theory of teaching, and, now as a class, they are doing the practical teaching of the Model School. All the members attend the opening exercises of the school, after which, during the day, each studednt-teacher hears such recitations and at such times as suit the necessities of the school. Each student-teacher is at present engaged in teaching for one hour daily, and in that time hears two classes, These are changed every month with the view of giving more general practice.

Mutual visitations take place among the student-teachers before these changes take place, in order to harmonize their methods.

"The principal of the Normal School spends two days in each week in the Model School, for the purpose of witnessing the methods of teaching, and the skill with which they are applied. The student-teachers meet the Principal of the Normal School on each alternate day for a class recitation in the practice of teaching. The order of the exercises at these meetings is as follows: first, inquiries on the part of the student teachers in reference to points of difficulty in teaching; second, remarks by the principal upon the observations made in his visits; third, methods of teaching each branch of study, considered in detail and with respect to the principles upon which all methods must be founded.

"The recitations of the student-teachers in the Normal School are so arranged that they do not take place while the student-teachers are engaged in the Model School.

"The following are said to be among the advantages of a Model School, conducted according to this plan: 1st, a high degree of class interest is created on the part of the student-teacher. 2d, the recitation of the student-teachers, to the Principal, gives point and system to theio teaching. 3d, such watchful inspection guards both the interests of the student-teachers and their pupils. 4th, the pupils in the Model School are well taught, and are not subject to the experiments of the ignorant and untrained. 5th, it secures six months to the student-teacher in which to practice the art of teaching. 6th, the members of the class engaged in teaching do not lose any recitations in the Normal School.

"The course of instructiou in the Normal School proper, consists, first, of the Preparatory Course, embracing the more advanced departments of the same studies pursued in the Model School, except vocal music and drawing, together with elementary algebra, natural philosophy, physiology, and the history of the United States.

"Secondly, the Normal Course, which students with a fair knowledge of the branches of study required by law to be taught in Common Schools, can enter upon and graduate in two years, and receive a diploma from the State. To all except experienced and successful teachers, an attendance upon two courses of lectures on teaching, and practice in the Model School during one term, are indispensable to graduation. The studies are: First term—Orthography and Etymology, Reading and Elocution, Writing and Drawing, Geography, Mental Arithmetic, Written Arithmetic, Grammar, Vocal Music. Second term—Reading and Elocution, Writing and Drawing, Physical Geography, Higher Grammar, Elements of Algebra, Philosophy, Theory of Teaching, Vocal Music. Third term—History of the United States, Algebra, Elements of Natural Philosophy, Rhetoric, Geometry, (five books,) Theory of Teaching, Book Keeping. Fourth term—Geometry completed, and Plane Trigonometry, Elements of chemistry, Botany or Zoology, Practice of Teaching.

"Thirdly, the Scientific Course, in which students graduating in the Normal course, or entering with the required preparation, can continue their studies for

three terms, and graduate in the scientific course. It is the design of this course to prepare Teachers for English high schools. The studies are: First term—Higher Algebra, Analytical Trigonometry, (half term,) Spherical Trigonometry and Surveying, (half term,) Ancient History, English Literature. Second term—Conic Sections and Analytical Geometry, Modern History, or Acoustics and Optics, Mental Philosophy, Geology. Third term—Differential and Integral Calculus, Astronomy, Moral Philosophy, Analytical Mechanics.

"Fourthly, the Classical Course, which is designed to prepare teachers for Classical High Schools. To be admitted to the Freshman class, a student must possess a thorough knowledge of Geography, English Grammar, Arithmetic, Elements of Algebra, History of the United States, Latin and Greek Grammar, Cæsar (two books), Virgil (four books of the Æneid), Greek Reader, and two books of the Anabasis. The following are the studies: *Freshmen*—First term—Anabasis, Sallust and Ovid, Higher Algebra, Rhetoric; Second term—Iliad, Livy, Geometry, (five books,) Zoology or Botany. *Sophomore.*—First Term—Memorabilia, Cicero, Geometry Completed, General History; Second Term—Herodotus, Horace, Trigonometry and Surveying, Chemistry. *Juniors.*—First Term—Select Plays of Sophocles, Juvenal, Conic Sections and Analytical Geometry, Geology; Second Term—Select Plays of Euripides, Tacitus, Differential and Integral Calculus, Astronomy. *Seniors.*—First Term—Select Plays of Æschylus, A Play of Terence, Acoustics and Optics, Mental Philosophy; Second Term—A Dialogue of Plato, A Play of Plautus, Mechanics, Moral Philosophy.

"The methods of teaching are those which seem best adapted to train teachers who need at least three things: 1st, A thorough knowledge of the branches of study they propose to teach; 2d, The best methods of teaching those branches; 3d, ability to instruct—to lead the young mind judiciously from the known to the unknown. The natural order in which the various branches of knowledge and the different parts of the same branch should be studied, is regarded; and, then, students are required not only to know thoroughly, but *to tell* what they know in a clear and logical manner; the peculiar object of normal educational institutions being to train persons to be skillful in imparting instruction.

"In the duties of the class-room, the Model School, and the Refectory, the two sexes associate as in a well regulated family. Their lodging rooms are in separate buildings, and their association on other occasions is under a careful supervision and wholesome control.

"The Faculty of instruction are: J. P. Wickersham, A. M., Principal, and Prof. of Mental and Moral Science, and of the Theory and Practice of Teaching. Edward Brooks, A. M., Prof. of Mathematics and Vocal Music. E. B. Weaver, Prof. of Natural Science. M. D. Wickersham, Principal of the Model School. A. R. Byerly, A. M., Assistant Prof. of Ancient Languages. D. H. Herr, Prof. of Drawing, Penmanship, and Book Keeping. Mrs. H. Marie Brooks, Teacher of Music on the Piano. Miss Mary J. Augee, Teacher of Grammar and English Literature. Miss Anna U. Russell, Teacher of Reading and Elocution. Miss Kate E. Wor-

rest, Miss Lucretia G. Weaver, Teachers of Geography and History. Miss M. Amanda Hershey, Assistant Teacher of Instrumental Music.

"Though the new building was only completed in October, the number of students is now 264, viz.: Model School, 60; Preparatory class, 130; Normal course, 42; Scientific course, 27; Classical course, 4. But the prospect for a full school next year, is quite encouraging; and during the year 1859 420 students were enrolled, viz; 130 ladies and 290 gentlemen.

"The School year is divided into two equal sessions. The first commences on the first Monday in April, and continues 22 weeks; the second, on the second Monday in October, and continues also 22 weeks. The spring vacation is three weeks; the fall vacation five weeks. Pupils from abroad in the Model School are charged $6.00 per quarter of 11 weeks, for instruction in the regular branches. In the Preparatory course the charge is $7.50 per quarter; in the Normal course it is $9,00 per quarter; and in the Scientific and Classical Courses, $11.00 per quarter. The charge for boarding, including washing and light, is $2.50 per week. The lowest charge for a quarter, including tuition, boarding, washing, light, etc, exclusive of the extra branches, is $33.50, and the highest $38.50.

"The entire cost of the ground building, furniture, and apparatus was about $60,000.

"The income for tuition in the Normal School, including extra branches, is $4000 for every hundred students. Add to this $1000 from a full Model School, and $7.00 per student, boarded and lodged in the Normal School, paid by the Steward, as rent for the building and furniture, and the income for one year from a full school of 300 will be $15,000. Deducting from this $3600 for interest on cost (or dividend), $1000 for repairs, $1000 for addition to apparatus and furniture, etc., and $500 for insurance, taxes, etc., annually, and there will still remain $9000 for Professors' salaries.

ST. LOUIS.—We have received "The Annual Report of the Board of St. Louis public schools for 1858–59." It is a neat pamphlet of 194 pages, containing the reports of the President of the Board, the Hon. Samuel H. Bailey; the report of the Superintendent, Ira Divoll, Esq.; the report of C. S. Pennell, Esq., Principal of the High School; the report of the Principal of the Normal School, Richard Edwards, Esq.; statistics, rules, etc, etc. The city is divided into eleven districts, in which are maintained twenty-six distinct schools, graded as follows: primary, intermediate, grammar, high, and normal. The school year commences on the last Monday of August, and is divided into four terms of eleven weeks each. The salaries of the male teachers range from $500 to $2500, those of the female teachers from $350 to $900. The whole number of pupils enrolled during the last year is 11,366; average attendance 5,739; the cost of the schools per scholar ranged from $3.95 to $83.80; average cost per scholar $17.17; total special cost of schools $99,081.38; total expenditure, comprising improvements, repairs, etc., $107,440.34.

The following remarks, which we quote from the report of the President, ex-

press in a few words our idea of the nature of the Normal School, and the necessity for its establishment, wherever well qualified teachers are needed:

"There is no part of the system that is fulfilling its purpose to a greater degree than the Normal School. Although the period is short since it commenced operations, yet the time is long enough to demonstrate the fact that it will furnish us the only effective means within our reach of procuring teachers for our schools that are thoroughly qualified. This institution was established in obedience to the idea which is rapidly becoming recognized all over our country where there are free schools, that teachers must receive a professional training before they are properly fitted for their work. The old doctrine that any person who had only a partial knowledge of arithmetic, grammar, and geography, and could read any composition in the English language, without stopping to spell the hard words, was capable of teaching a school, is being laid on the shelf, there, let us hope, to remain until covered with the dust of ages, an object of interest only to the antiquarian and historian. This theory, or the practice under it, may have answered its purpose in times past, but it will not do for the present. If our schools are to meet the demands of the present age, if they are to be made to grow to their full stature, and occupy the position in the community which they should, and to which I believe they are destined, the radical change which we have made in this respect, by the establishment of a Normal School, must be adhered to and persisted in under all circumstances. No clamor about extravagance, or ideas of false economy should induce us for a moment to think of discontinuing it.

"The colleges, seminaries, and other institututions of learning throughout our land, and from which come most of the candidates for teacher's places, do not confer upon their scholars an education of that peculiar character which fits them for the labor of the schoolroom, and for the very apparent reason, that they are not designed for any such purpose. Their deficiency consists in the fact that they do not go far enough, they only place in the hands of those who may wish to become teachers, the implements to carry on the work, but do not instruct them how those implements are to be used. It is indispensibly necessary that all who are going to teach should acquire the faculty of imparting to others what they themselves know, on all the subjects required to be taught. In first entering upon the work of the schoolroom, very few persons find themselves possessed of the natural tact which alone can supply the defect above alluded to; but as it must be supplied in some way, however imperfectly, it can be done only by dint of perseverance amidst difficulties, which none but the most zealous can overcome, and even then at the expense of the time and patience of the pupils. Here is to be found the reason why it is that so many persons (and the proportion is by no means small) who assume the office of teacher, never become anything but mere bunglers, or fail altogether. It would seem, therefore, to be in accordance with the plainest dictates of common sense, that before any individual shall be permitted to occupy so important a position as that of an instructor of youth, he shall have been thoroughly taught, by a systematic course of instruction, all that experience has demonstrated to be necessary for him to know, in addition to mere scholarship."

CONSTITUTION OF THE STATE TEACHERS' ASSOCIATION.—A desire having been expressed by several members of the Association that the Constitution should be published for the benefit of those unacquainted with its provisions, we give place to it below:—

Article 1. This Association shall be called *The Wisconsin Teachers' Association*, and shall have for its object the mutual improvement of its members, and the advancement of public education throughout the State.

Art. 2. The Association shall consist of persons engaged in teaching in this State, each male member paying one dollar annually. Honorary members may be elected at any annual meeting, who may, by the payment of the annual fee, become acting members.

Art. 3. The officers of this Association shall be a President, three Vice Presidents, a Secretary, a Treasurer, and also a Board of five Counsellors, who, with the President and Secretary, shall constitute an Executive Committee, any three of whom shall be a quorum—to be elected by ballot at each annual meeting.

Art. 4. The duties of the President, Vice Presidents, Secretary, and Treasurer shall be such as pertain to the same officers in similar associations.

Art. 5. The Executive Committee shall arrange business for the annual meetings, procure lecturers for the same, and through the Secretary of the Association who shall be, *ex officio*, their Secretary, conduct such correspondence as may be deemed advisable. They shall also have power to call special meetings of the Association, to fill all vacancies occurring in the offices, and shall make to the Association an annual report of their proceedings.

Art. 6. The annual meeting shall be held at such time and place as the executive Committee may designate; and any five members who shall meet at a regular or special meeting shall constitute a quorum for the transaction of business.

Art. 7. This Constitution may be amended at any annual meeting of the Association, by a vote of two thirds of the members present.

ROCK COUNTY TEACHERS' ASSOCIATION.—The first regular meeting of this Association was held at Evansville, on the 18th, 19th, and 20th of January. A large number of teachers were in attendance, and much interest was manifested on the part of the inhabitants. Addresses were delivered by Hon. J. L. Pickard, State Superintendant, Messers. Searing, Allen, and Kilgore. Several fine essays were read. The discussions and class exercises passed off well, and all left feeling that they had held a profitable and pleasant session. A constitution was adopted, and officers elected for the ensuing year. We have received the proceedings of the meeting too late for insertion in this number. We will give them in full next month.

WE have received No. 1, Vol. 1, of the "National Educator," a monthly magazine devoted to science, literature, morals, and general education. Edited by R. Curry, A.M., Pittsburg, January, 1860. Terms, $1 per year.

CANADA.—We have received the annual report of Supt. Ryerson, of Upper Canada, for the year 1858, also the annual Report of the Hon. Pierre J. O. Chauvau, Supt. of Lower Canada, for the same year. From the former report we learn that the total receipts from all sources for common school purposes was $1,244,488, the total amount paid teachers $920,633. Number of children reported between the ages of five and sixteen years, 360,578. The number of teachers employed was, males 2,965, females 1,237; average wages per year of males $454, of females $242. Number of schools reported as open, 3,886, of which 1,936 were *free*, that is, schools in which no fees were paid by pupils. Maps are provided in 2,403 schools, globes in 612, blackboards in 2,895, sets of apparatus, including orreries, tellurians, etc., in 500. We are certain that a report on these heads from an equal number of schools in Wisconsin would not present us in so favorable a light in regard to maps, globes and apparatus. The report of Superintendent Chauveau shows that there has been received from the annual grant and raised by assessessments or contributions for the support of primary schools in Lower Canada in the year 1858 the sum of $575,379.66. The sums expended for superior schools and academies will largely increase this amount. The whole amount paid out by the department of public instruction for purposes of education during the year was $246,836.45. The number of children reported between the ages of five and sixteen years, is 247,204, but the Superintendent believes that this number falls far short of the reality, and that the true number is above 320,000. The number of children between the ages of seven and fourteen is set down as 151,819, of which 103,963 attend school.

THE ATLANTIC MONTHLY is received just as we are going to press. The present publishers do not permit it to fail in interest or value. Subscribe for it.—Journal subscribers can have it for $2,00 a year.

BOOK TABLE.

KEY TO CLARK'S GRAMMAR, in which the analyses of the sentences in the Grammar are indicated by diagrams. New-York: A. S. Barnes & Burr, 51 and 53 John St. 1859.

Opposed as we are to the use, in schools, of keys to any text book, we nevertheless think that this little work will materially aid young teachers in understanding and properly teaching the analysis of our language, and will serve to make more useful the popular grammar with which it is connected.

THE SCHOOL HARMONIST, by N. C. BROOKS, A. M., President of Baltimore Female College. New-York: A. S. Barnes & Burr. 1860.

This is a choice collection of Tunes, designed to accompany the "Manual of Devotion," by the same author, and is worthy of a place on the desk of every pupil of a sufficient age to read music.